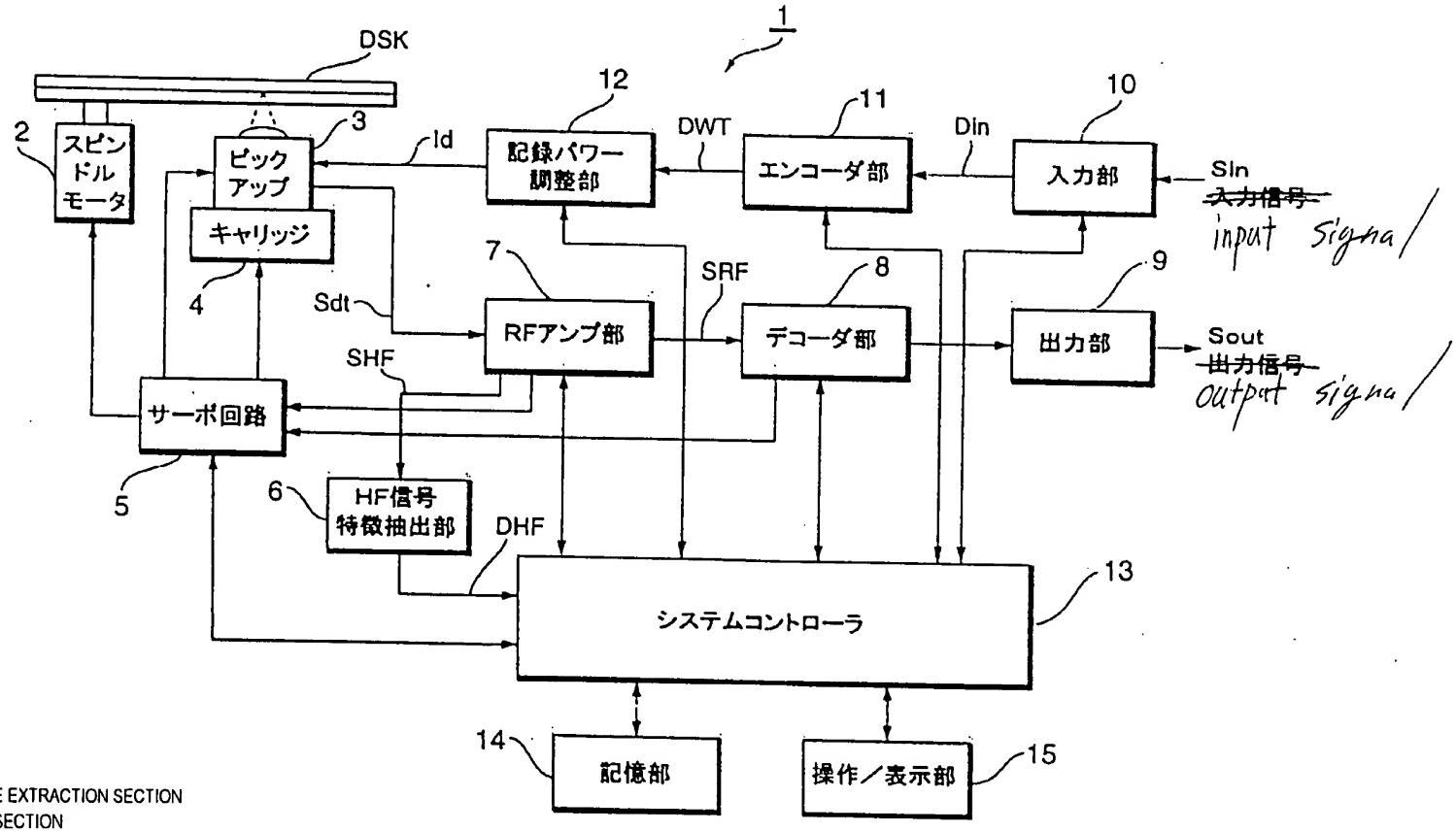
TOH260 EBTT9660

Fig. 1



2 SPINDLE MOTOR
3 PICKUP
4 CARRIAGE
5 SERVO CIRCUIT
6 HF SIGNAL FEATURE EXTRACTION SECTION
7 RF AMPLIFICATION SECTION
8 DECODER SECTION
9 OUTPUT SECTION
10 INPUT SECTION
11 ENCODER SECTION
12 RECORD POWER ADJUSTMENT SECTION
13 SYSTEM CONTROLLER
14 STORAGE SECTION
15 OPERATION/DISPLAY SECTION

Fig. 2

Disk type. ~~ディスクの種類~~ (k)	target β value Data. ~~目標β値データ~~ βk
~~光ディスクA~~(k=1)	β1
~~光ディスクB~~(k=2)	β2
~~光ディスクC~~(k=3)	β3
~~光ディスクD~~(k=4)	β4

Optical disk

Fig. 3

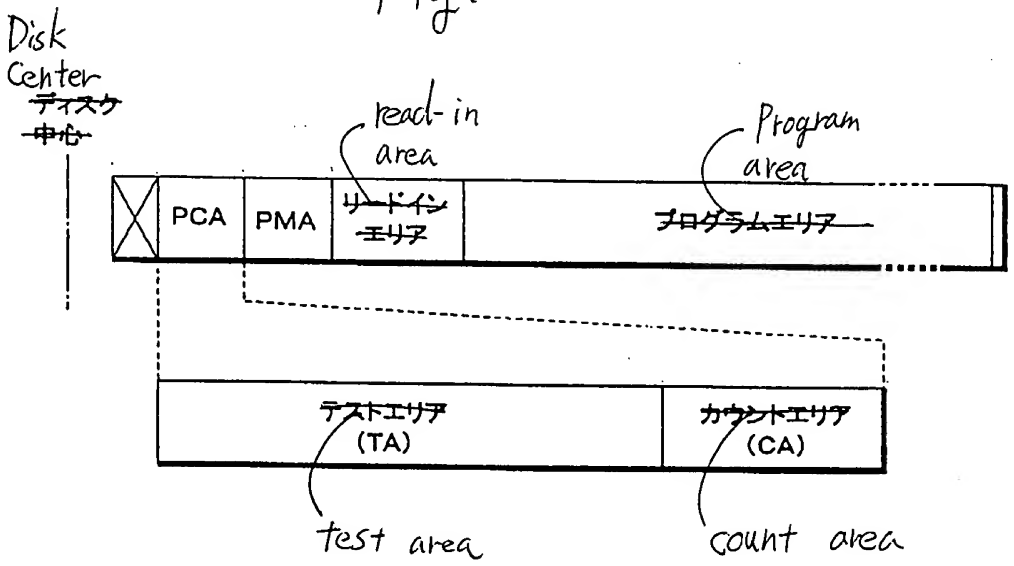
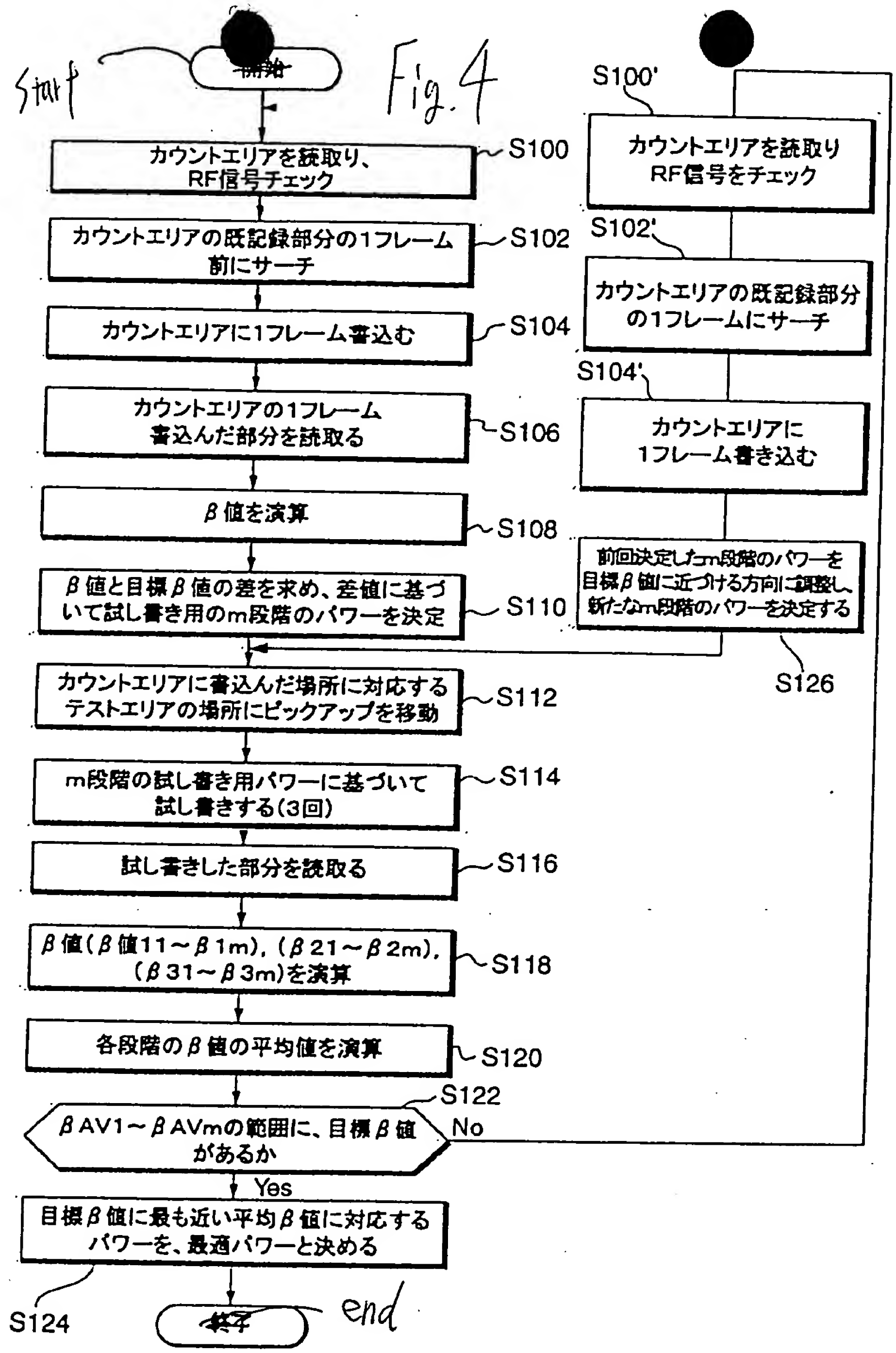


Fig. 4



Start
開始
カウントエリアを読取り、RF信号チェック
S100
カウントエリアの既記録部分の1フレーム前にサーチ
S102
カウントエリアに1フレーム書込む
S104
カウントエリアの1フレーム書込んだ部分を読取る
S106
β値を演算
S108
β値と目標β値の差を求め、差値に基づいて試し書き用のm段階のパワーを決定
S110
カウントエリアに書込んだ場所に対応するテストエリアの場所にピックアップを移動
S112
m段階の試し書き用パワーに基づいて試し書きする(3回)
S114
試し書きした部分を読取る
S116
β値(β値11〜β1m),(β21〜β2m),(β31〜β3m)を演算
S118
各段階のβ値の平均値を演算
S120
S122
βAV1〜βAVmの範囲に、目標β値があるか
No
Yes
目標β値に最も近い平均β値に対応するパワーを、最適パワーと決める
S124
終了
end
S100'
カウントエリアを読取りRF信号をチェック
S102'
カウントエリアの既記録部分の1フレームにサーチ
S104'
カウントエリアに1フレーム書き込む
前回決定したm段階のパワーを目標β値に近づける方向に調整し、新たなm段階のパワーを決定する
S126

S100 READ COUNT AREA AND CHECK RF SIGNAL
S102 SEARCH FOR LOCATION ONE FRAME BEFORE ALREADY RECORDED PORTION OF COUNT AREA
S104 WRITE ONE FRAME INTO COUNT AREA
S106 READ PORTION OF COUNT AREA INTO WHICH ONE FRAME IS WRITTEN
S108 CALCULATE β value
S110 FIND DIFFERENCE BETWEEN β value AND TARGET β value AND DETERMINE M STEPS OF POWER FOR TRIAL WRITE BASED ON DIFFERENCE VALUE
S112 MOVE PICKUP TO LOCATION OF TEST AREA CORRESPONDING TO DATA WRITTEN INTO THE COUNT AREA
S114 EXECUTE TRIAL WRITE THREE TIMES BASED ON M STEPS OF TRIAL WRITE POWER
S116 READ TRIAL WRITE PORTIONS
S118 CALCULATE β valueS (b11 TO b1m), (b21 TO b2m), AND (b31 TO b3m)
S120 CALCULATE AVERAGE VALUE OF β valueS AT EACH STEP
S122 DOES TARGET β value LIE IN RANGE OF bAV1 TO bAVm?
S124 DETERMINE THAT POWER CORRESPONDING TO AVERAGE β value CLOSEST TO TARGET β value IS OPTIMUM POWER
S126 ADJUST M STEPS OF POWER DETERMINED AT THE PRECEDING TIME IN DIRECTION OF BRINGING CLOSE TO TARGET β value AND DETERMINE NEW M STEPS OF POWER
S100' READ COUNT AREA AND CHECK RF SIGNAL
S102' SEARCH FOR LOCATION ONE FRAME BEFORE ALREADY RECORDED PORTION OF COUNT AREA
S104' WRITE ONE FRAME INTO COUNT AREA

Fig. 5A

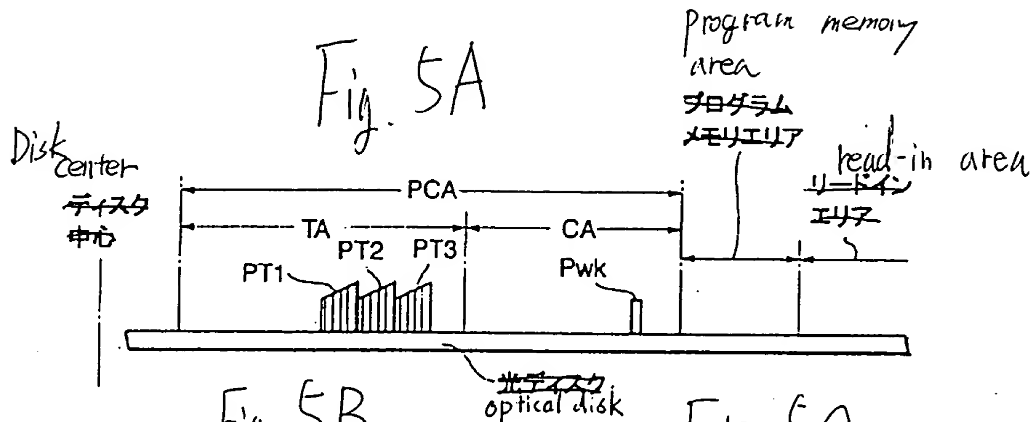


Fig. 5B

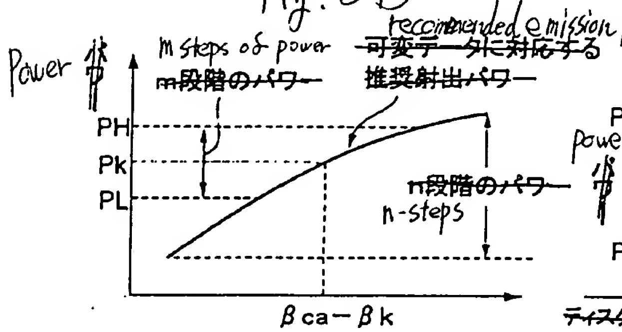


Fig. 5C

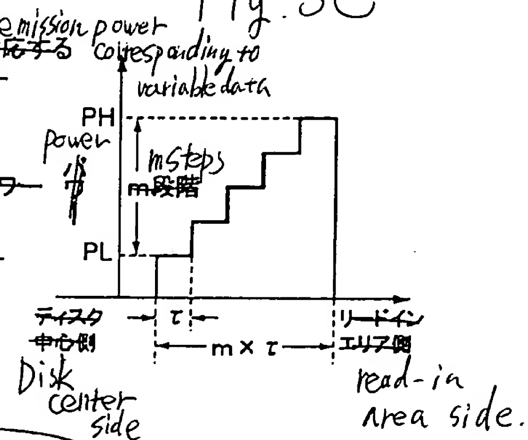


Fig. 5D

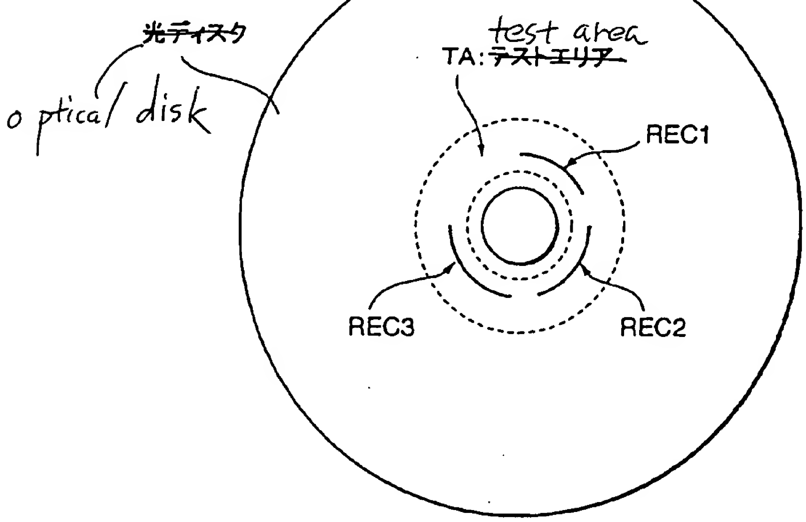


Fig. 6

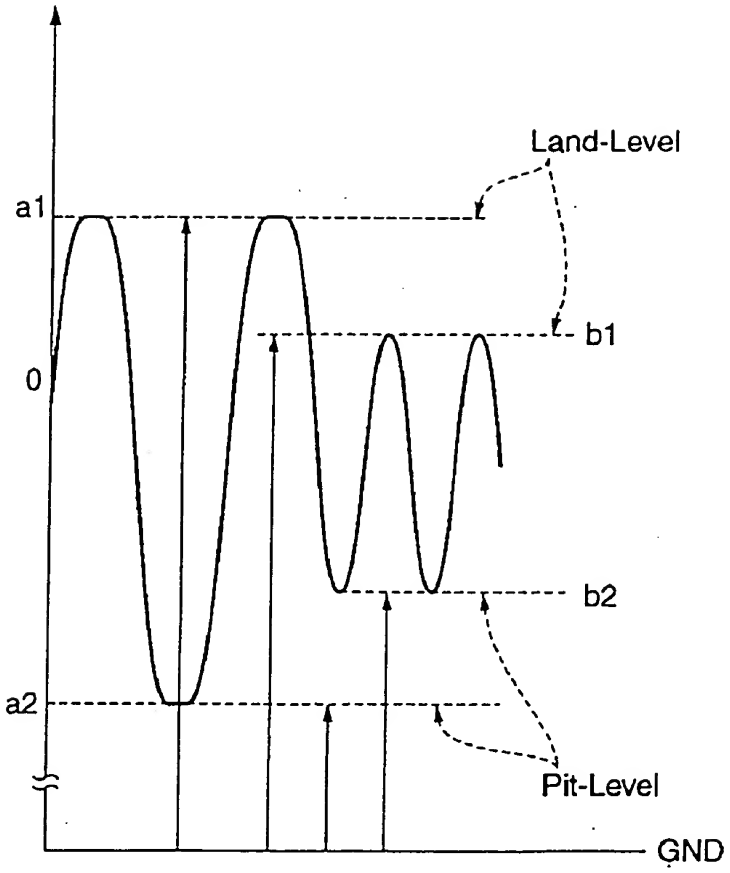
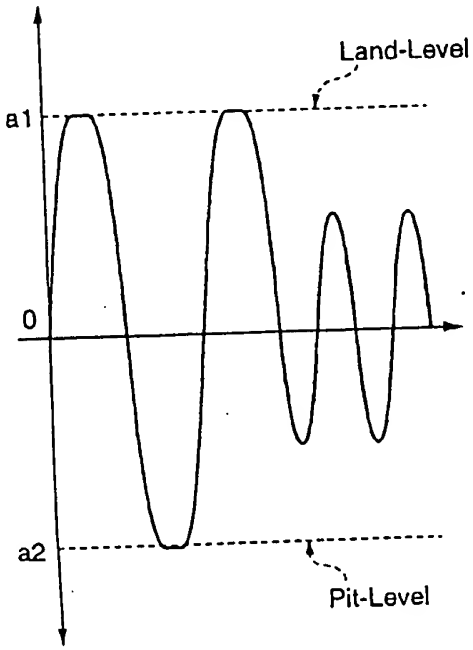
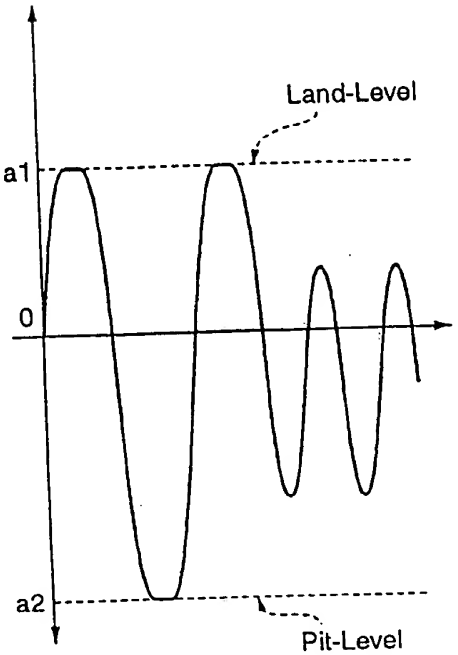


Fig. 7A



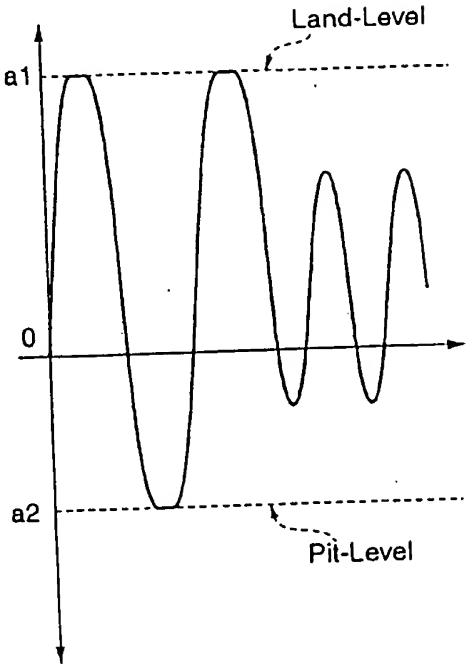
($\beta \fallingdotseq 0$)

Fig. 7B



($\beta < 0$)

Fig. 7C



($0 < \beta$)

Fig. 8A

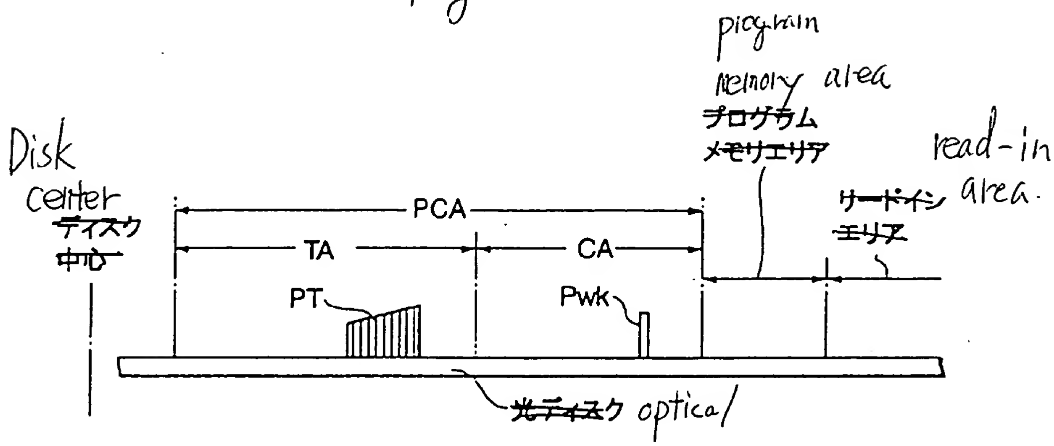


Fig. 8B

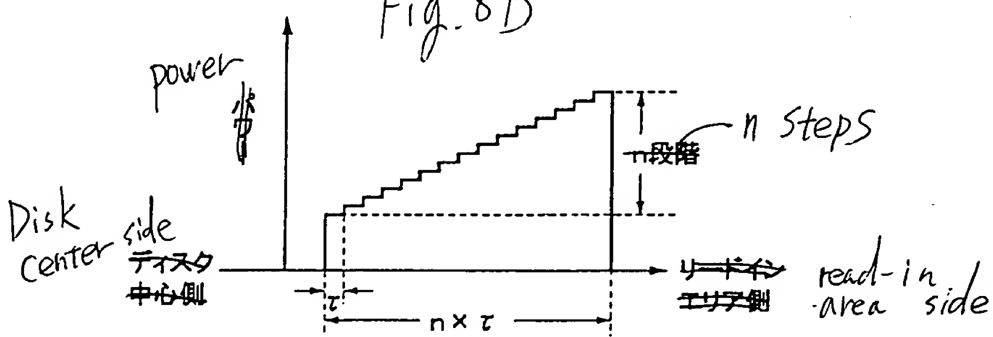


Fig. 8C

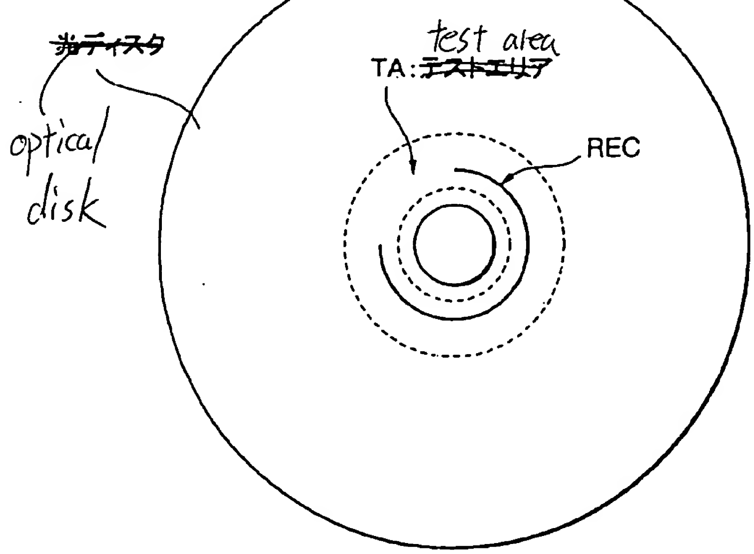
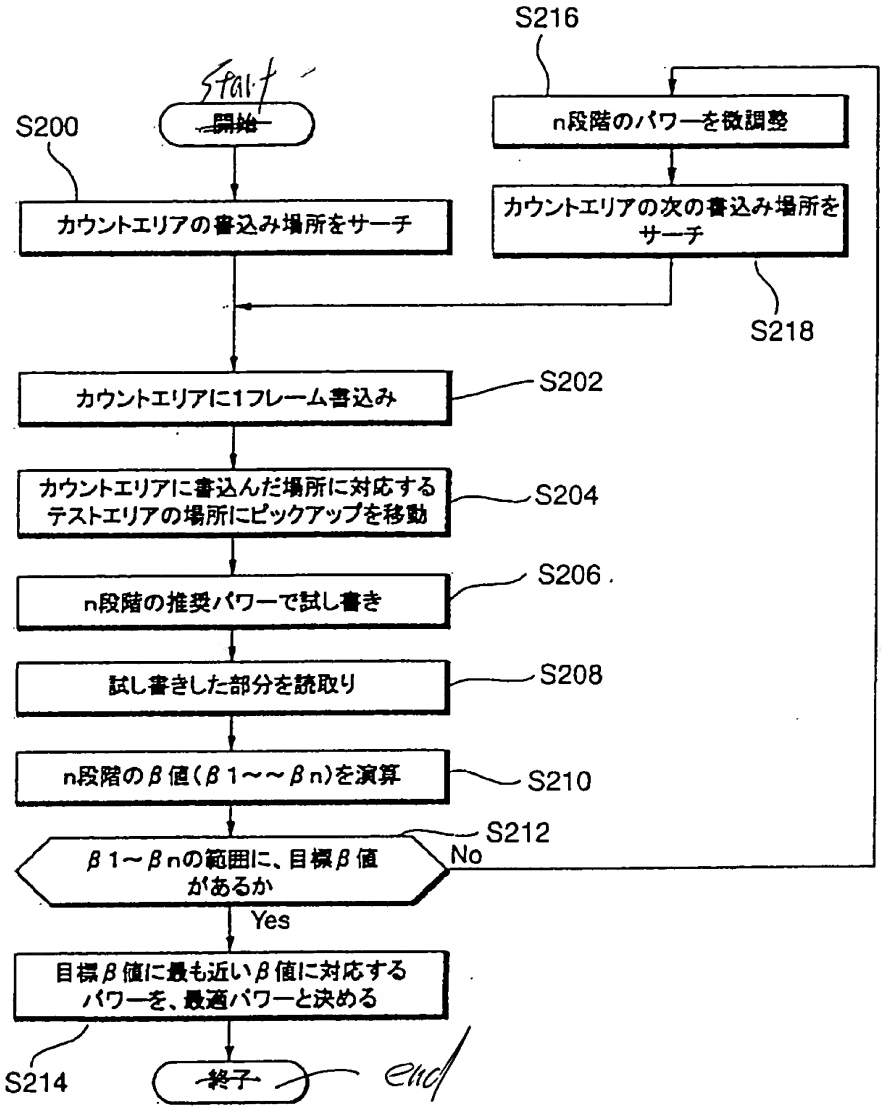


Fig. 9



S200 SEARCH FOR WRITE LOCATION OF COUNT AREA
S202 WRITE ONE FRAME INTO COUNT AREA
S204 MOVE PICKUP TO LOCATION OF TEST AREA CORRESPONDING TO WRITE LOCATION INTO COUNT AREA
S206 WRITE FOR TRY AT n STEPS OF RECOMMENDED POWER
S208 READ TRIAL WRITE PORTION
S210 CALCULATE n β valueS
S212 DOES TARGET β value LIE IN RANGE OF b1 TO bn?
S214 DETERMINE THAT POWER CORRESPONDING TO β value CLOSEST TO TARGET β value IS OPTIMUM POWER
S216 FINELY ADJUST n STEPS OF POWER
S218 SEARCH FOR ANOTHER WRITE LOCATION OF COUNT AREA